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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,909	12/28/2000	Ramachandra Pai	BEA9-2000-0016-US1	9610

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IBM CORPORATION
IP LAW DEPT, ED02-905
15450 SW KOLL PARKWAY
BEAVERTON, OR 97006-6063

EXAMINER

THAI, TUAN V

ART UNIT PAPER NUMBER

2186

DATE MAILED: 08/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	09/752,909	Applicant(s)	PAI, RAMACHANDRA
Examiner	Tuan V. Thai	Art Unit	2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 June 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

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PART III

RESPONSE TO AMENDMENTS

1. This action is responsive to communication filed on June 30, 2003. This amendment has been entered and carefully considered.
2. The rejection of claims 1-18 are again presented for examination. The amendment have been considered, however they are moot in view of a new ground of rejection.

Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable Ashcroft et al. (USPN: 6,460,144); hereinafter Ashcroft.

As per claims 1 and 9, Ashcroft teaches the invention as claimed including a method and apparatus for storing data from a network on a node comprising network device (e.g. see figure 1); a data storage device is taught as disk array 13; a first plex

connected to the network is taught as the archive server 14 and a second plex connected to the data storage device is taught as system disks 16, a volume connected to the first plex (archive server 14) and the second plex (system disk 16) is taught as Business Continuance Volume (BCV) disk 17 (e.g. see figure 1, column 2, lines 8 et seq.). Ashcroft, with one exception, does not particularly disclose the amended portions of the current invention wherein the volume which connected to the first and second plexes are grouped in the kernel layer of the operating system. First of all, it should be noted that Ashcroft clearly discloses that many modifications could be made to the system without depart from the scope of the invention, particularly Ashcroft clearly discloses that his invention can be implemented in other operating system which including the amended portion of the claims wherein the data is directly communicated from a kernel layer of a source node to a kernel layer of a target node (e.g. see column 4, lines 30 et seq.). Accordingly it would have been obvious to one of ordinary skill in the art at the time the current invention was made to modify Ashcroft invention in order to allow all the plexes and the volume being grouped in the kernel layer of the operating system, in doing so, it would allow for data to directly communicate through only one layer, avoid data duplication at multi-layer, therefore enhancing system reliability and system recovery efficiency.

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As per claims 2-3 and 10; Ashcroft discloses that the first plex (archive server 14) is a feed plex for backing up data from the network and for receiving data from a source node 10 (e.g. see column 2, lines 30 et seq.);

As per claims 4 and 11, Ashcroft teaches the Business Continuance Volume disk 17 is a feed volume for writing data to the to the first plex (archive server 14) and the second plex (system disk 16) (e.g. see column 2, lines 19-59);

As per claim 5, Ashcroft discloses that the recovery process also referred to as the BCV RESTORE command wherein the BCV of the standby node to be linked to the system of the failed server and starting to initiates copying of the data from the BCV to the system disk (e.g. see column 3, lines 54 et seq.);

As per claims 6 and 12, Ashcroft discloses that the second plex (system disk 16) is a feed plex of the server node 10 to manage transfer of data to the BCV disk 17 (e.g. see column 2, lines 39 et seq.);

As per claims 7 and 13, Ashcroft discloses the archive server 14 is a feed plex for receiving data from the server node 10 and for managing restoration of data to the BCV disk 17 (e.g. see column 2, lines 30 et seq.);

As per claims 8 and 14; Ashcroft further discloses that the BCV disk 17 is a feed volume for writing data to the first plex (archive server 14) and the second plex (system disk 16) (e.g.

see column 2, lines 19-59);

As per claim 15; Ashcroft discloses the invention as claimed, detailed above with respect to claims 1 and 9; Ashcroft however does not particularly disclose a computer-readable medium of instructions to be implemented on a computer as being claimed in claim 15. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Ashcroft's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of Ashcroft's program on other systems;

As per claim 16; Ashcroft discloses that the medium is a recordable storage medium and a modulated carrier signal (e.g. see column 2, lines 15 et seq.);

As per claims 17 and 18, Ashcroft discloses the first plex (archive server 14) is a feed plex for backing up data from the

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network and for receiving data from a server node 10 (e.g. see column 2, lines 30 et seq.). Ashcroft further discloses the archive server 14 for managing restoration of data to the BCV disk 17 (e.g. see column 3, lines 46 et seq.).

5. Applicant's arguments filed June 30, 2003 have been fully considered but they are deemed to be moot in view of a new ground of rejection.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. **Any response to this final action should be mailed to:**

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Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is 703-305-3842.

The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Matthew M. Kim can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900. The Official Fax Numbers for TC-2100 are:

After-final (703) 746-7238

Official (703) 746-7239

Non-Official/Draft (703) 746-7240

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TVT/August 06, 2003

Tuan V. Thai
PRIMARY EXAMINER

Group 2100